

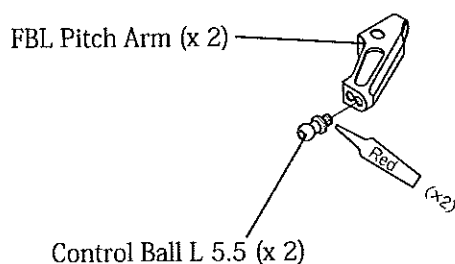
# No.84037 FLYBARLESS ROTOR HEAD 90 ASSEMBLY MANUAL

Contents			
Head Button	1	Special Socket Head Bolt M4 x 26	1
FBL Center Hub (90)	1	Nylon Lock Nut M4 (t3.8)	1
Spindle Shaft (Φ10)	1	Threaded Rod M2.3 x 85(Φ2.5)	2
Spindle Tube	1	Button Head Bolt M6 x 10	2
Main Blade Holder Assembly	2	Button Head Bolt M4 x 8	2
FBL Pitch Arm (90)	2	Universal Link	4
Damper Rubber 90°	2	FBL Pitch Jig Base	1
FBL Washout Arm Assembly	2	FBL Pitch Jig Rod	2
Thrust Washer	2	Socket Head Bolt M2.6 x 8	2
Damper Spacer	2	Socket Head Bolt M3 x 6	2
Spindle Shim Washer	2	Socket Head Bolt M3 x 8	2
Spindle Washer M6	2	Socket Head Bolt M3 x 12	2
Thrust Bearing SST-1790DSG	2	Socket Head Bolt M3 x 20	2
Control Ball L5.5	2	Blade Bolts M5	2
Thrust Bearing Cap	2	Nylon Lock Nut M5	2
Washer 3 x 4.5 x 1	2	Setscrew M3 x 4	2
Rotor Spacer t3	4	Flat Head Screw M2 x 8	4
Joint Ball Spacer t2.75	2	Flat Head Screw M2 x 10	2

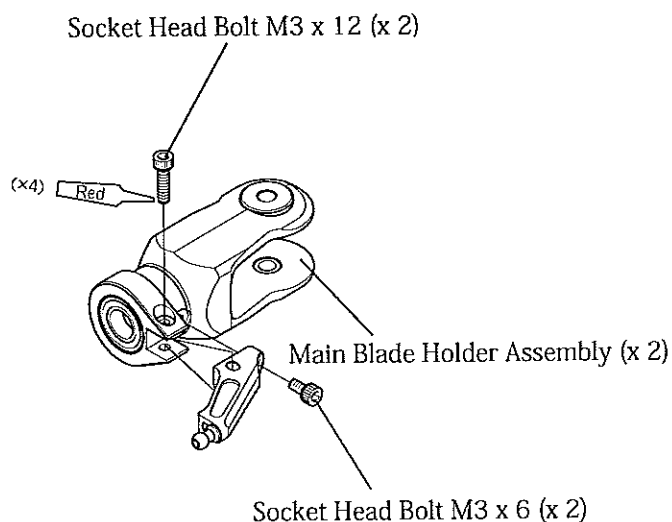
## 【Preparation】

Remove the Main Rotor Head Assembly, Washout Assembly and associated Linkages from your helicopter.

## 1 MAIN ROTOR GRIP ASSEMBLY



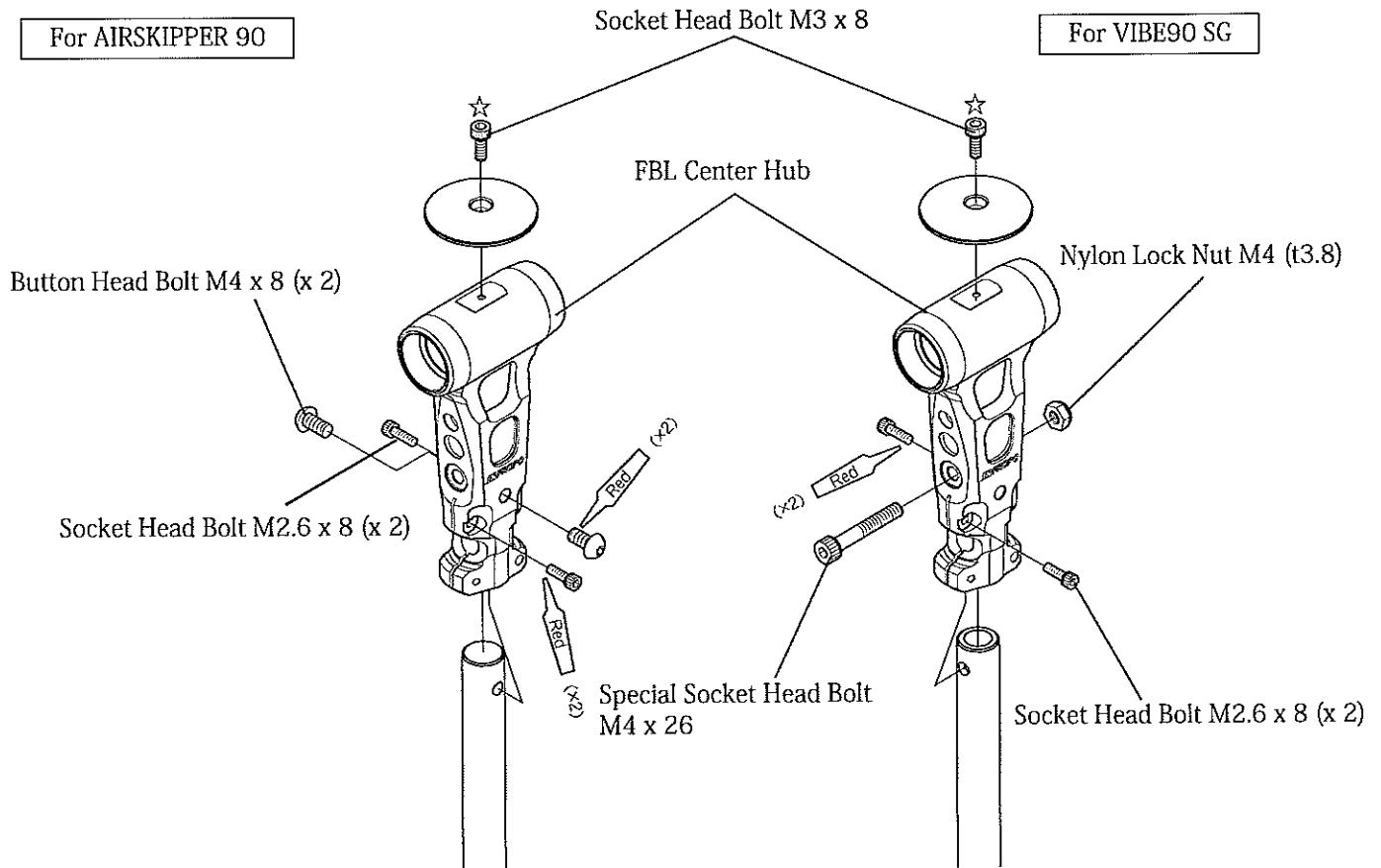
\*The control ball is typically installed in the outer hole. Depending on your exact servo setup, this will usually result in a cyclic pitch (Aileron/Elevator) range of  $\pm 12^\circ$ . If more pitch range is required, please install the ball in the inner hole. For further details on flybarless (FBL) setup instructions please refer to the manual accompanying your FBL gyro.



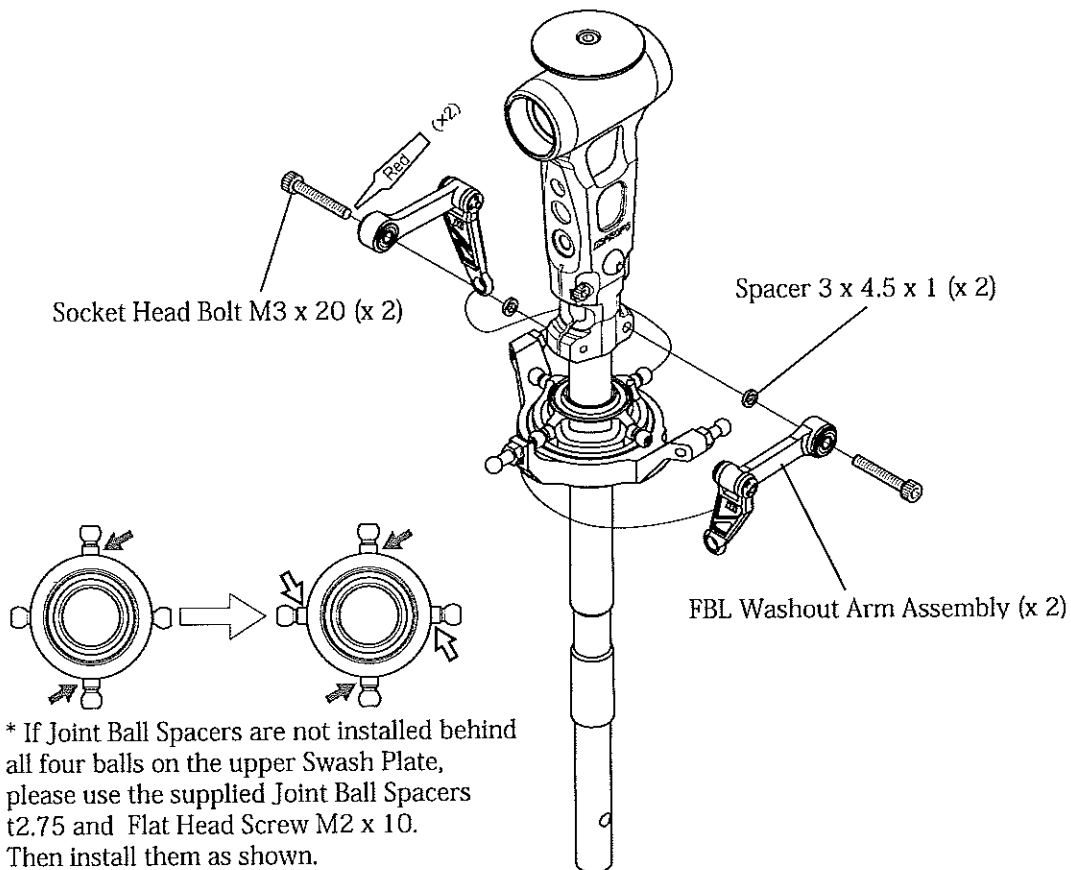
\* Make two sets.

## 2 FBL CENTER HUB ASSEMBLY

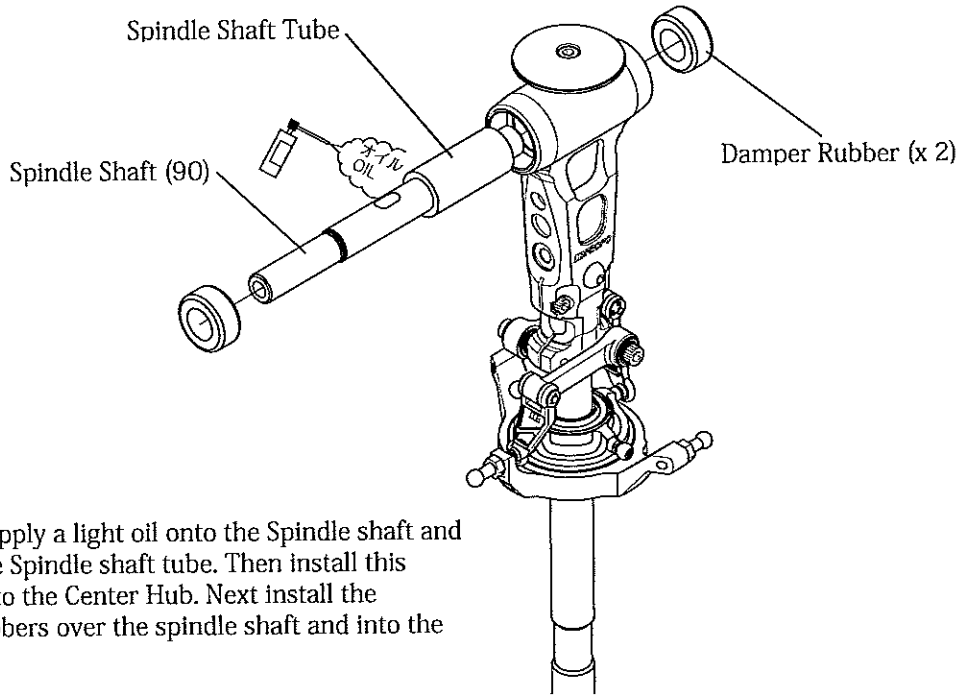
Temporarily tighten the bolts indicated by a ☆. They will be firmly tightened following Pitch adjustment.



## 3 FBL WASHOUT ARM ASSEMBLY

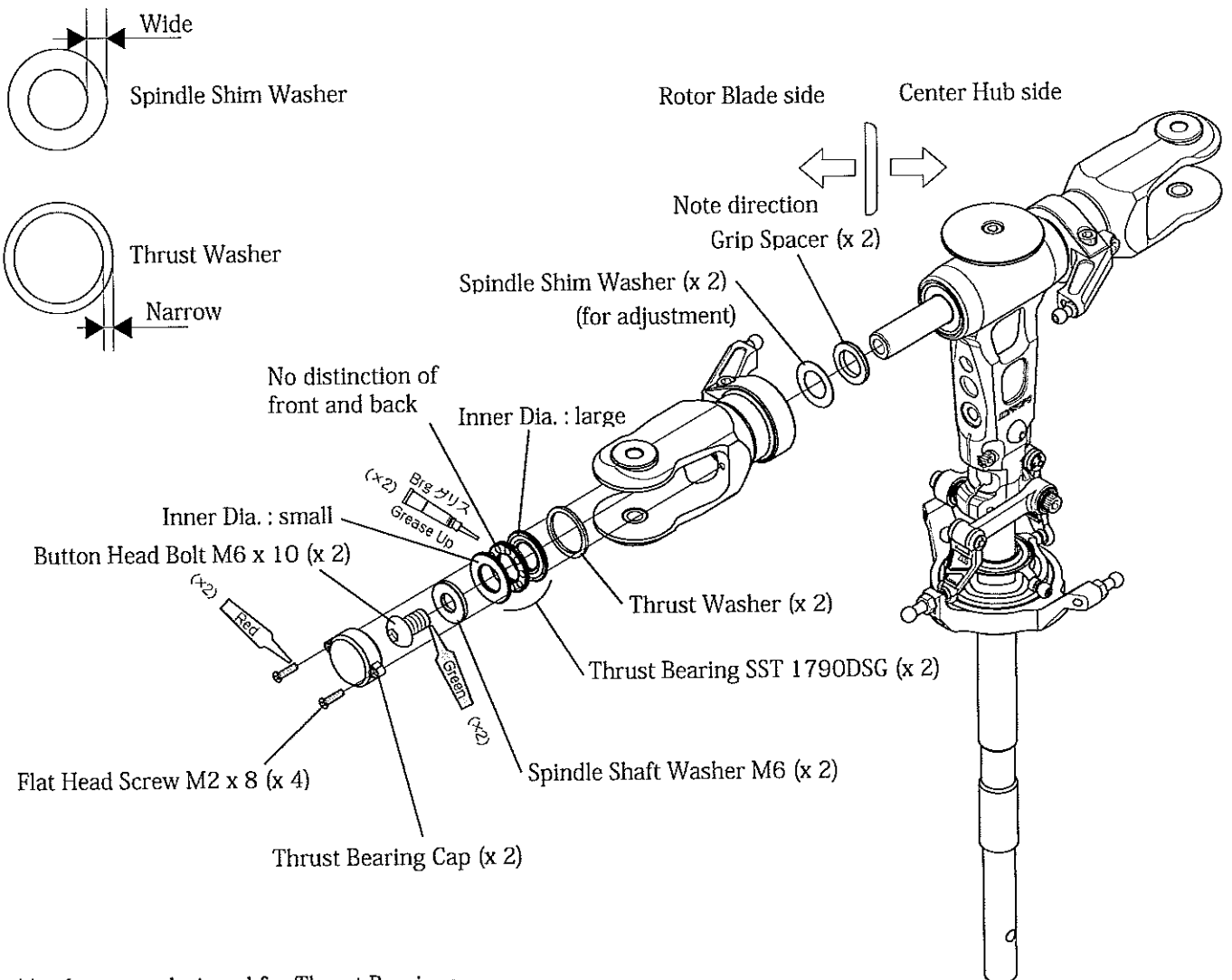


## 4 SPINDLE SHAFT ASSEMBLY



\*Sparingly apply a light oil onto the Spindle shaft and slide one the Spindle shaft tube. Then install this assembly into the Center Hub. Next install the Damper Rubbers over the spindle shaft and into the head block.

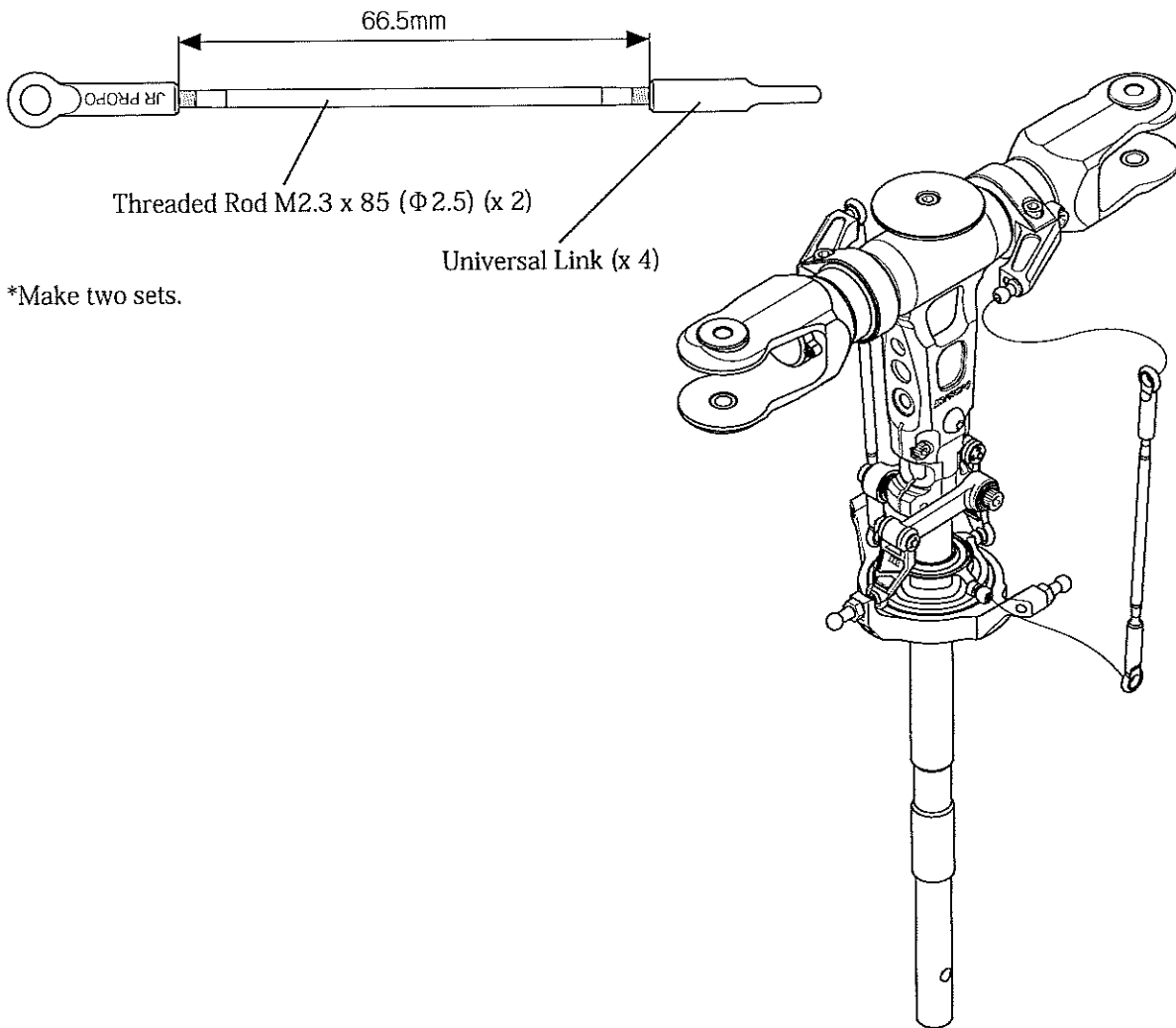
## 5 MAIN ROTOR GRIP INSTALLATION



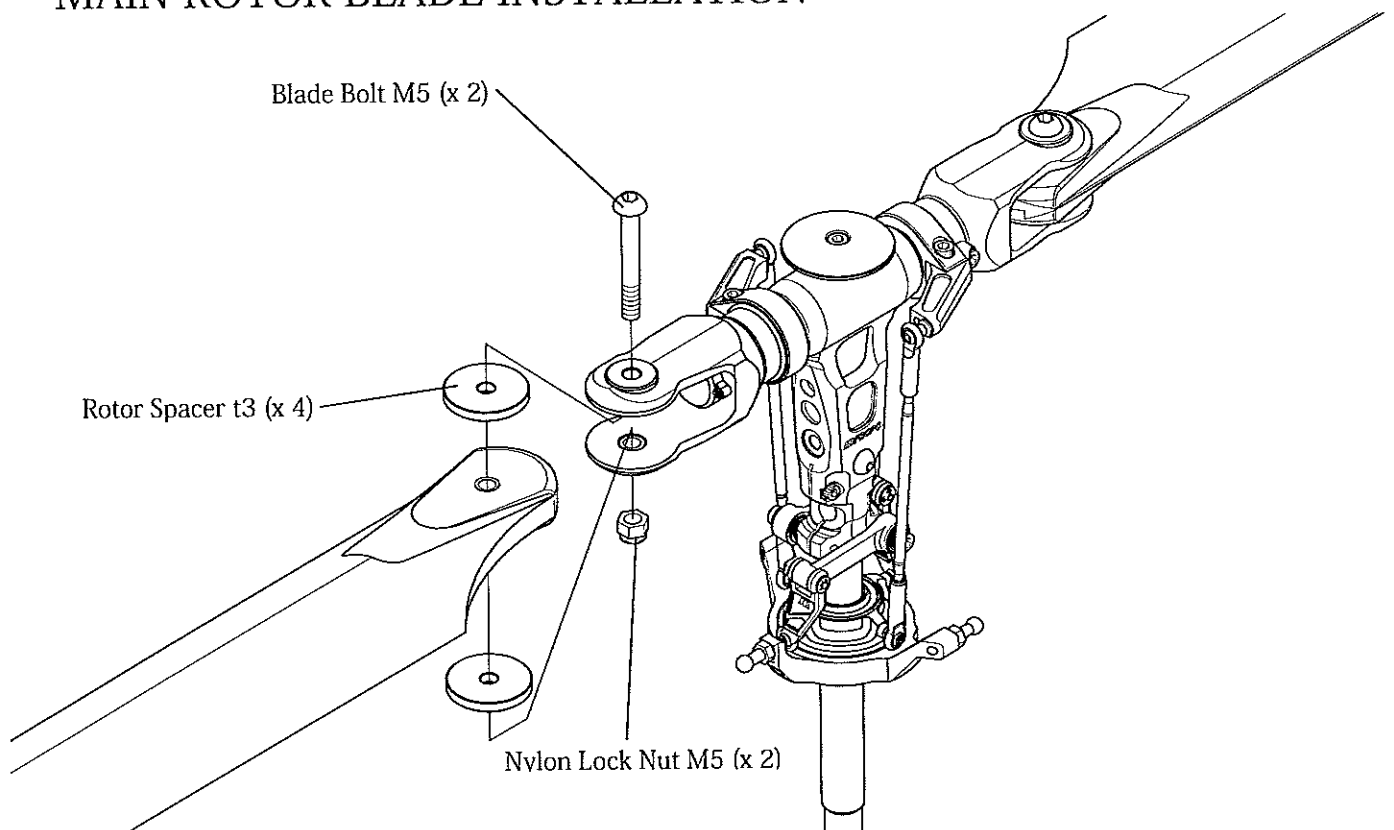
\*Apply grease designed for Thrust Bearings.

\*Please replace these bolts each time they are removed for maintenance, etc.

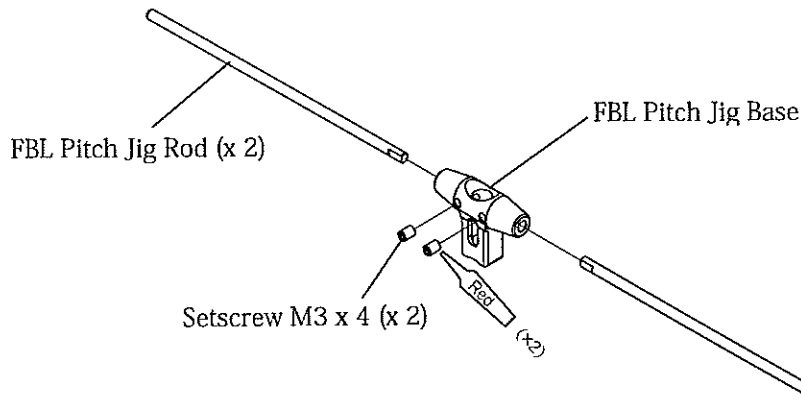
## 6 LINKAGES



## 7 MAIN ROTOR BLADE INSTALLATION

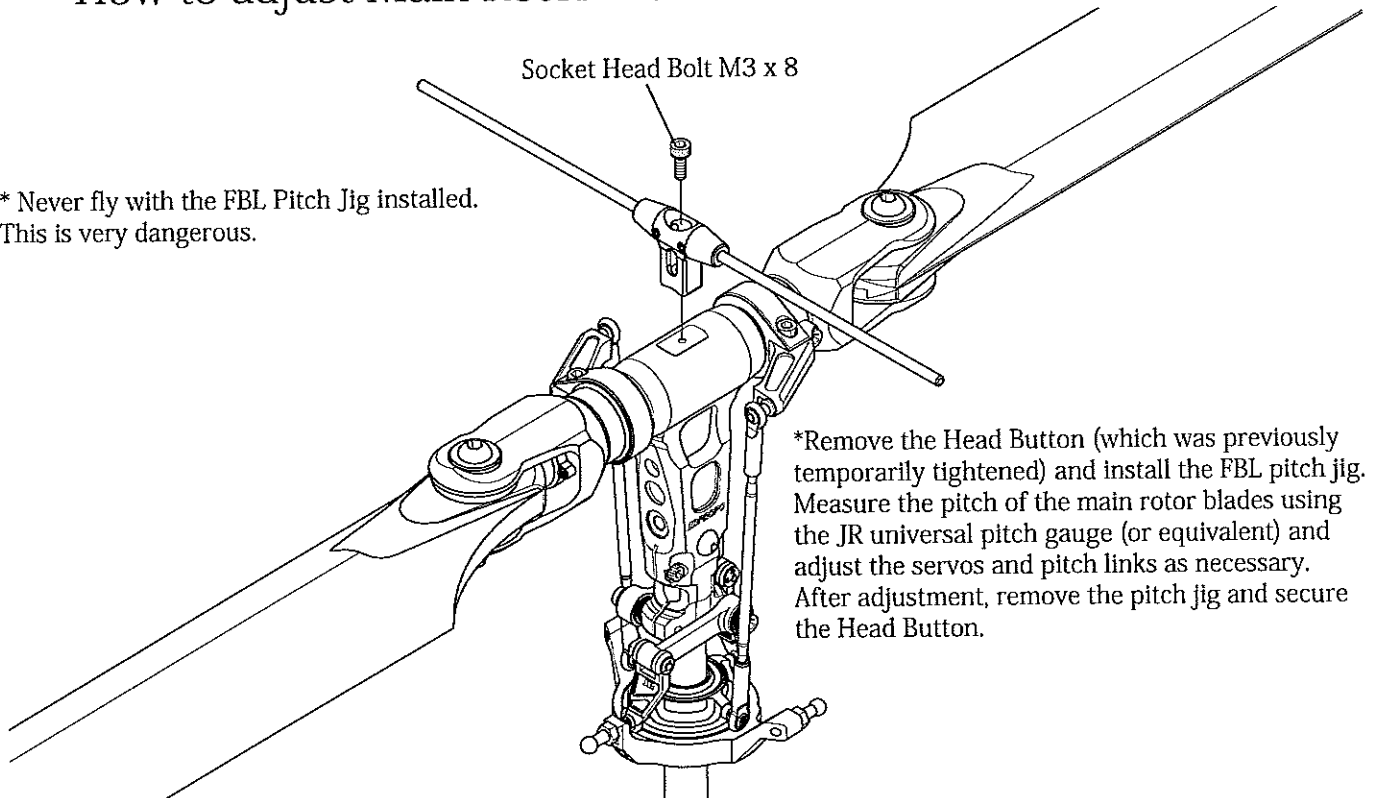


## 8 FBL PITCH JIG ASSEMBLY

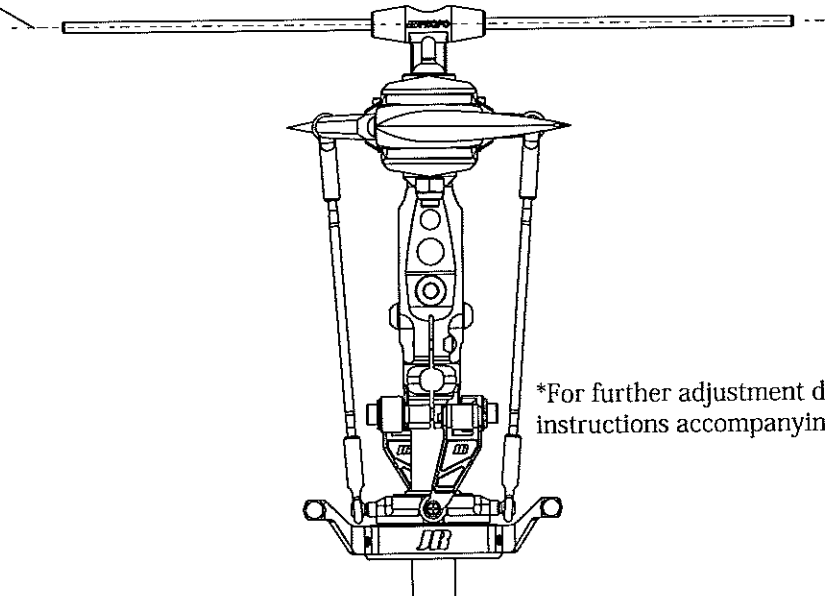


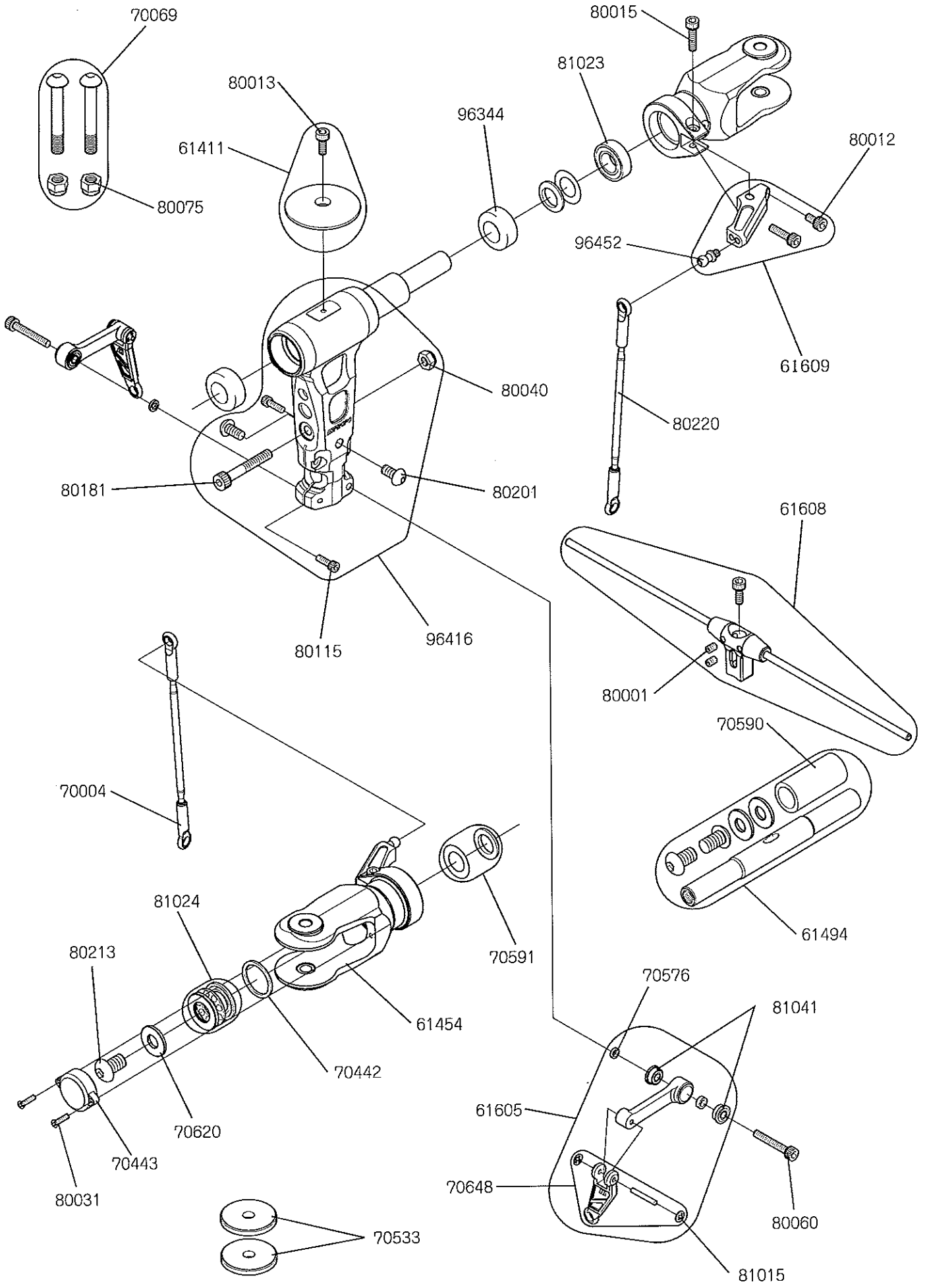
### How to adjust Main Rotor Pitch

\* Never fly with the FBL Pitch Jig installed.  
This is very dangerous.



baseline





ITEM NO.	DESCRIPTION	QTY/BAG	NOTE
61454	Main Blade Holder Assembly	× 1	L-1790ZZ already assembled
61411	Head Button	× 1	w/Socket Head Bolt M3 x 8
61494	Spindle Shaft (10Φ)	× 1	w/Shaft Tube,Washer,Bolts
61609	FBL Pitch Arm (90)	× 1	w/Socket Head Bolt M3 x 6.M3 x 12
61605	FBL Washout Arm Assembly	× 2	Collar : Red LF-730ZZ already assembled
61608	FBL Pitch Jig set	× 1	one set
70004	Universal Link	× 10	
70069	Main Blade Bolts M5	× 2	w/Nylon Lock Nut M5
70442	Thrust Washer	× 2	
70443	Thrust Bearing Cap	× 2	
70533	Rotor Spacer t3	× 4	
70576	Washer 3 x 4.5 x 1	× 2	
70590	Spindle Shaft Tube	× 1	
70591	Grip Spacer Set	× 1	w/Spindle Shim Washer
70620	Spindle Washer M6	× 2	
70648	Washout Link C	× 2	w/Washout Link Pin
80001	Setscrew M3 x 4	× 10	
80012	Socket Head Bolt M3 x 6	× 10	
80013	Socket Head Bolt M3 x 8	× 10	
80015	Socket Head Bolt M3 x 12	× 10	
80031	Flat Head Screw M2 x 8	× 10	
80060	Socket Head Bolt M3 x 20	× 10	
80075	Nylon Lock Nut M5	× 10	
80115	Socket Head Bolt M2.6 x 8	× 10	
80164	Nylon Lock Nut M4 (t3.8)	× 10	
80181	Special Socket Head Bolt M4 x 26	× 2	
80201	Button Head Bolt M4 x 8	× 10	
80213	Button Head Bolt M6 x 10	× 10	
80220	Threaded Rod M2.3 x 85 (Φ2.5)	× 2	
81015	CA Stopper Ring M2	× 10	
81023	Shielded Bearing 9 x 17 x 5	× 2	L-1790ZZ
81024	Thrust Bearing 9 x 17 x 5	× 2	SST-1790DSG
81041	Flanged Bearing F3 x 7 x 3	× 2	LF-730ZZ already assembled
96344	Damper Rubber	× 4	Hardness : 90°
96452	Control Ball L5.5	× 2	
96416	FBL Center Hub (90)	× 1	w/Bolts

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